

automatic gain amplifier. --

REMARKS

The Patent Office examiner's objection to the title is noted. A new title has been inserted by amendment. Should this title still not be acceptable, applicant respectfully requests that the Examiner suggest an acceptable title.

The Patent Office Examiner's objections and rejections of the claims under 35 U.S.C. §112 for informalities is noted. Accordingly, Claims 1 through 16 have been canceled and new Claims 17 through 22 have been added to correct the informalities and more distinctly claim the novel feature of applicant's invention. The new claims clarify applicant's invention and should be allowable over any reasonable interpretation or combination of the references of record.

The Patent Office Examiner's rejection of claims under 35 U.S.C. §102 and 35 U.S.C. §103 over Aoyagi et al (U.S. Patent No. 5,652,925) alone and in view of Kondo et al (U.S. Patent No. 5,053,877) is respectfully traversed. Aoyagi et al teaches only varying amplification according to the light level which is well known in the art. However, the arrangement in Aoyagi et al would not cover the range of light levels as shown in Figure 2(A) of the drawings. Aoyagi et al does nothing more than change the amplification according to light levels. It says nothing about signal to noise ratio. In contrast, applicant's invention, as claimed can ignore the S/N ratio for extreme low

light conditions and can record by substantially increasing the degree of amplification. No reasonable interpretation of Aoyagi et al would produce this result. This is done by using completely separate independent auxiliary amplifiers having different signal to noise ratios.

Also, applicant does not understand how the Patent Office Examiner concludes the signal amplifying circuit of Aoyagi et al is an "auxiliary" amplifier when this patent teaches there is only one amplifier with the degree of amplification varying somewhat according to light conditions. Perhaps the Examiner is considering AMP 4, component 8, controller 9, and M 10 (for driving the iris) as one circuit and components 5, 6, and 7 as another. However, the circuits are different because the objects being controlled are different. Further, this patent shows only one amplifier 4 and no AGC circuit. While this amplifier may have an AGC function, it cannot be determined from the patent disclosure. It is apparently only a simple amplification circuit. In contrast in applicant's claimed invention, the AGC circuits are limited to controlling the amplification degree only.

Likewise, the patent of Kondo et al '877 is no more applicable than Aoyagi et al. There is not the slightest suggestion in Kondo et al of completely separate amplifiers having different signal to noise ratios (S/N) and degrees of amplification. Applicant cannot find anything more than a

disclosure that teaches varying amplification signal of AGC amplifier 5 which is similar to the prior art disclosed in the background. There is no suggestion of using a second auxiliary amplifier much less anything relating to high or low S/N ratio. Kondo et al appears to just increase amplification for low light but says nothing at all about S/N ratio. The claims as now presented should be allowable over any reasonable interpretation of Aoyagi et al alone or in combination with Kondo et al.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "Version With Markings To Show Changes Made".

It is respectfully requested that this response be considered as including a conditional petition for an extension of time sufficient to make this response timely if a Petition for an Extension of Time is inadequate or is omitted. Please charge the costs of any extension or additional extension of time, if needed, to Deposit Account 15-0640.

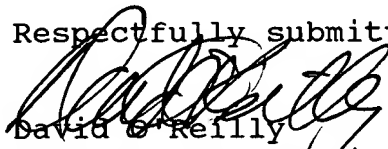
Reconsideration of this application and allowance of the claims as now submitted are earnestly solicited.

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Respectfully submitted,


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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Specification:

Paragraph beginning at Page 1, line 3, has been amended as follows:

TITLE: [SIGNAL AMPLIFYING] AUXILIARY AMPLIFIER SELECTION
CIRCUIT [IN] FOR A CCD CAMERA

Paragraph beginning at Page 4, line 18, has been amended as follows:

According to claim 2 of this invention, signal processing circuit d of a video camera using a CCD, area sensor etc. provides an automatic gain control auxiliary amplifying circuit m_1 of high S/N ratio, low amplification degree and automatic gain control auxiliary amplifying circuit m_2 of low S/N ratio, high amplification degree[.,]. [according] According to necessity, it is possible to selectively use automatic gain control auxiliary amplifying circuit m_1 of high S/N ratio or automatic gain control auxiliary amplifying circuit m_2 of low S/N ratio.

Paragraph beginning at Page 7, line 2, has been amended as follows:

As shown in Fig. 2, in the second embodiment, in signal processing circuit d of video camera using a CCD, area sensor etc. an automatic gain control auxiliary amplifying circuit m_1

of high S/N ratio amplification degree 0 dB to 26 dB and an automatic gain control auxiliary amplifying circuit m_2 of low S/N ratio amplification degree 0 dB to 46 dB are provided. According to necessity, it is possible to selectively [using] use automatic gain control auxiliary amplifying circuit m_1 of high S/N ratio or automatic gain control auxiliary amplifying circuit m_2 of low S/N ratio by switch S. V_{DD} is an electric source.